(19) World Intellectual Property Organization International Bureau





(43) International Publication Date 2 June 2005 (02.06.2005)

PCT

(10) International Publication Number WO 2005/050542 A1

(51) International Patent Classification⁷: G06F 1/00

G06K 9/00,

(21) International Application Number:

PCT/IB2004/052425

(22) International Filing Date:

15 November 2004 (15.11.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 60/524,280

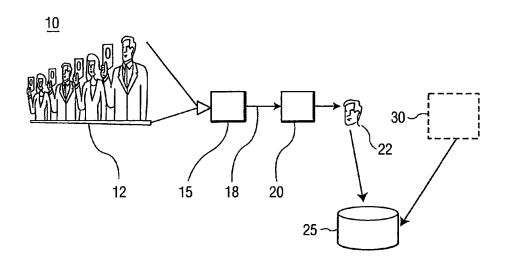
21 November 2003 (21.11.2003) US

- (71) Applicant (for all designated States except US): KONIN-KLIJKE PHILIPS ELECTRONICS N.V. [NL/NL]; Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).
- (71) Applicant (for AE only): U.S. PHILIPS CORPORA-TION [US/US]; 1251 Avenue of the Americas, New York, NY 10020 (US).

- (72) Inventor; and
- (75) Inventor/Applicant (for US only): VAN DE SLUIS, Bartel, M. [NL/NL]; Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).
- (74) Common Representative: KONINKLIJKE PHILIPS ELECTRONICS N.V.; Intellectual Property & Standards, c/o THORNE, Gregory, L., P.O. Box 3001, Briarcliff Manor, NY 10510-8001 (US).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,

[Continued on next page]

(54) Title: SYSTEM AND METHOD FOR EXTRACTING A FACE FROM A CAMERA PICTURE FOR REPRESENTATION IN AN ELECTRONIC SYSTEM



(57) Abstract: A system and method for representing a person in an electronic system. An image is obtained including an image of a target person. The image or a digital representation thereof, is processed to recognize a facial feature associated with the target person in the image. The target person's facial portion is then extracted from the image. The extracted target person's facial portion is displayed via a display interface associated with a same or separate and distinct electronic system to represent the target person when connected to that electronic system. An image capture device capturing the image obtained is adapted to take an image at a moment when a target person is smiling or when a target person is gazing towards capture device. An icon may be generated that includes the extracted target person's facial portion for representing the target user via a display interface associated with the electronic system.



WO 2005/050542 A1



ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM,

ZW, ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

 as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations

Published:

- with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.